

STAGE II  
MULTIPLE USE SURVEY REPORT

Mountain Pine Beetle Control Project

F.Y. 1968

**I. Introduction and Description**

A. The purpose of this project is an attempt to control the mountain pine beetle infestation on selected areas of the Targhee National Forest and adjacent private, state, and federal lands which are threatening National Forest land. It is not anticipated that the project will create an endemic state in all areas at this time. A continued follow-up in subsequent years will be required to control insects and reduce the infestation to an endemic point.

Methods of control will be timber harvest, fall and burn, fall and chemically treat, and chemically treat standing trees. Chemical treatment methods will be used wherever the land and infestation lends itself to such treatment. Results of the treating method on other resources will be considered prior to initiating this treatment.

B. Most of the infested lands are within the intermediate multiple use zone. Some infestations border on, or are within, the travel and water influence zones. Some major high-value lands affected within these zones are:

Warm River, Mesa Falls, Fall River, Cave Falls Road,  
Mesa Falls Scenic Loop, Teton Canyon, Highway #191,  
Island Park Reservoir, and Sawtell Mountain.

C. The project is organized into three major operating zones. The zones are further divided into treatment units. As surveys are completed, a particular treating procedure is specified for each unit. The zones are described as follows:

**Zone II - Includes all of the Spencer, Island Park, and Ashton Districts.**

The major infestations within this zone include: Portion of Sheridan Creek, south side of Sawtell Mountain, Bishop Mountain, Big Bend Ridge, and Anderson Mill Canyon. There are lesser infestations located on Two Top Mountain, Thurburn Ridge, and other small areas scattered throughout the Ashton District. There are several areas of infested lodgepole pine adjacent to National Forest boundary south of Sawtell Mountain and in Shotgun Valley. The zone treatment headquarters will be at the Island Park Ranger Station.

Zone III - Includes all of the Teton Basin, Swan Valley, and eastern portions of the Rexburg District.

The major infestations within this zone include lands between Bitch Creek to Trail Canyon, from Twin Creek to Henderson Creek, and the entire Pine Creek drainage. There are several small infestations southeast and south of Teton Basin and widely scattered local infestations on the Swan Valley District plus areas along the north edge of Palisades Reservoir.

Only three small areas on this zone are included in the 1967-1968 treating project. They are the Boy Scout Camp and Teton Canyon campground areas in Teton Canyon and the Girls Camp area in Darby Canyon.

Zone IV - Includes all of the Porcupine District and adjacent private, state, and other federal lands.

Specific infested lands within this zone are too numerous to mention but will amount to about one-half to three-quarters of the District plus several thousand acres of alienated land adjacent to and within Forest lands. The zone treatment headquarters will be at the Porcupine Guard Station.

- D. The approximate acreage and estimated number of infested trees, which is planned for treatment are: 450,000 trees on 300,000 acres. This is a rough gross estimate and includes an estimated 20,000 acres of adjacent or interior alienated land. These figures are from best possible evidence of the new hits observed through the summer months. Forthcoming surveys and other methods of analysis will give a more firm estimate. It is believed that actual number of trees will not be below this figure.

Alienated land, whether exterior or interior, which poses a definite threat to National Forest lodgepole pine infestation will be considered as portions of treatment areas. Written permission will be acquired from private land owners to treat their lands. Infested alienated land posing a definite threat to National Forest lands will be treated as parts of Forest treating units or as separate units. Approval has been given by the Regional Forester to treat alienated lands.

- E. The infested areas on Forest and alienated lands are most extensive in mature or over-mature lodgepole pine. Elevation, slope, and exposure do not seem to affect the epidemic; size class is the most determining factor. Therefore, the large size timber will receive the major consideration for logging as a method of treatment.

The terrain on the infested lands varies from gentle to steep slopes. Soil types range from erodible to stable. Access into

many of the infested units is limited by poor roads and trails or no transportation access at all. Distance from treating headquarters and weather conditions also have a major effect on the timing of the project in certain treating units.

F. Treating methods to be used:

1. Logging as a method of treatment and salvage is the top priority. Sales are being coordinated with other uses of land and with other methods of insect control to insure that the combination of treating methods will be the most effective to suppress the mountain pine beetle epidemic. Each timber sale requires its own multiple use survey and report; therefore, coordination requirements, as they apply to timber sales, will not be considered here.
2. Fall and sprinkle of all trees within a unit is second in priority. This method would be effective where down material slash would not adversely affect other uses, namely grazing and public access. This treatment is effective but time consuming and costly.
3. Fall and burn as methods of treatment is a third alternative. However, this method is limited because of suitable conditions and economic factors. Few such areas seem to be desirable for this treatment method. Scorching of adjacent trees is a problem in closed stands.
4. Chemical treatment of standing trees, with a provision to fell and treat trees infested to heights exceeding 30 feet, is the fourth treating method. This method is adaptable and effective, if properly executed, in a wide variety of infestation intensities. Though trees are left standing, the side effects of this method have the least impact on other resources and uses.

Even though logging is the primary method of control, salvage is limited by accessibility, mill capacity, and the fact that sales are not ordinarily cut and removed during a single flight of bugs. Many infestations are not of the intensity that the entire stands should be removed. The effects of large cutover areas without proper coordination and timing with other resource use would have a greater conflict or impact on resources than would the results of other treatment methods. Nevertheless, logging will be used where feasible and appropriate for control and salvage. Roads will be constructed where needed for logging or any other type of effective treatment. Coordination requirements needed in road construction will be handled with an appropriate multiple use survey and report for each road project.

## **II. Recommendations**

1. Recommend approval of this proposal.
2. Prevent damage to wildlife habitat and movement of wildlife.
3. Protect all live water, ponds, and marshes from insecticide spillage or spray.
4. Obstruct no waterways with down trees or slash.
5. Protect improvement and recreation facilities from damage.
6. Protect esthetics in selecting treating methods in water and travel influence zones.
7. Locate all camps away from water or travel influence zones.
8. Provide for watershed and stream protection at contractor campsites.

9. Provide for watershed protection on primitive and system roads.
10. Allow no wheel or track vehicle travel on steep, erodible slopes except on existing established roads.
11. Construct no temporary work roads on steep, erodible slopes.
12. Correlate work roads needed with transportation planning.
13. Require road construction and maintenance to meet minimum engineering standards of grade, drainage, stabilization, and revegetation.
14. Contractor camps will not be located in developed camp or picnic sites.
15. Provide for normal public use of resources, whenever possible or mandatory, in selecting time and method of treatment.
16. Provide protection to the public from any contact with poisonous chemicals in dumps or staging areas.
17. Protect the public by properly labeling all insecticide containers.
18. Keep chemical out of reach of livestock and wildlife.
19. Protect adjacent trees and resources when conducting fall and burn and fall and treat operations.
20. Require adequate maintenance, sanitation, and cleanup of all temporary camps and corrals.
21. Dispose of refuse, cane, hay, or spilled material used in the woods.
22. Apply adequate fire precautions in all treating methods during the fire season.
23. Program treatment priority in developed and planned recreation areas.
24. Remove markers and string lines from travel and water influence zones where public use is moderate or heavy after epidemic has been brought to endemic state and no future projects are needed.
25. Provide 100 percent cleanup of treated trees and slash along travel and water influence zone where visible to the public.
26. Remove all felled materials from roads, trails, and stock driveways.
27. Protect land survey corners, witness trees, and monuments.
28. Use fell and spray or burn method of treatment on all areas immediately visible from major route of travel in the travel and water influence zones and developed recreation sites.

### III. Evaluation of Resource Uses and Activities and Multiple Use Requirements

#### A. Recreation

The project will be adjacent to or include recreation sites, fishable streams and lakes and visible esthetic terrain. Treatment methods and protection procedures will be such that the above resources will not be impaired. All temporary camps, corrals, staging areas, string lines, markers could adversely affect public use if not properly located.

Any treatment method has possibilities of adversely affecting public enjoyment of the National Forest. Selection of proper time and method is paramount.

Applying the coordinating requirements of this report, the recreation resource will not be adversely affected. Conversely, if the beetle epidemic is not controlled, this resource will be considerably affected by the loss of the esthetic values afforded by these trees.

Dead insect-infested trees along main roadways provide an unsightly appearance and affect esthetics.

#### B. Range

Several cattle and sheep allotments will be affected by the control project. The method of treating used could create an impact on livestock use. Down logs and slash cut from treated trees would obstruct livestock grazing and travel. Large clearcuts within an allotment will definitely affect livestock use, both while the logging operation is active and later during regeneration protection. Coordination is needed in selecting treating methods and size of sale areas on any range allotment.

Chemicals, if improperly handled or left available to livestock could be dangerous. Range improvements could be damaged through treating or logging.

The present and future status of the range resource could be adversely affected if proper treatment decisions are not made.

#### C. Timber

This project is primarily designed to protect and salvage the lodgepole pine timber resource on the Targhee National Forest. Treatment by logging should be our first consideration if it can be coordinated with other uses. Items that need to be considered for logging are: Logging capacity of available mills, types of infestation, merchantability of trees, other uses within the stand, concentration of the infestation and timing. It will be necessary to use other treating methods to complement logging to acquire effective control, depending on acres, and types of infestation and location.

Slash residues, snags and down logs will need to be considered in the treatment method. Fire hazard is created by some treating methods. A hazard also remains where high concentrations of dead trees are left standing or felled in one group. Effect on other resources will need to be considered when choosing the treatment method. Spray and burn or fell and sprinkle will have an effect on the residual stand. Protection of other species and regeneration will need to be considered.

The future lodgepole pine stands would be seriously affected without effective outcome of this project. The project, if effectively accomplished, is of benefit to most resources in the long run.

D. Watershed

The epidemic of mountain pine beetle in itself is not presently affecting watershed; however, side effect and long-range results could be a detriment. Usually, as trees die, underbrush and natural regeneration of pine and other trees take the place of dead trees. A serious threat to watershed is danger of wildfire after a majority of the trees are dead from the insects. Here again, method of control could be an important factor in the end result.

There may be a need to construct temporary work roads into infested areas. Many of these temporary roads will traverse on or near planned system roads. Close coordination with transportation planning is important to reduce additional impact from road construction on other resources. Timber sale roads will be handled separately under the timber sale for each unit logged. However, roads built or maintained for insect treating should be coordinated with other uses and resources. Many existing system and primitive roads should receive maintenance; soil stability and proper drainage need to be considered here. It should be determined whether back country and primitive roads are left open for travel after the project.

E. Fish and Wildlife

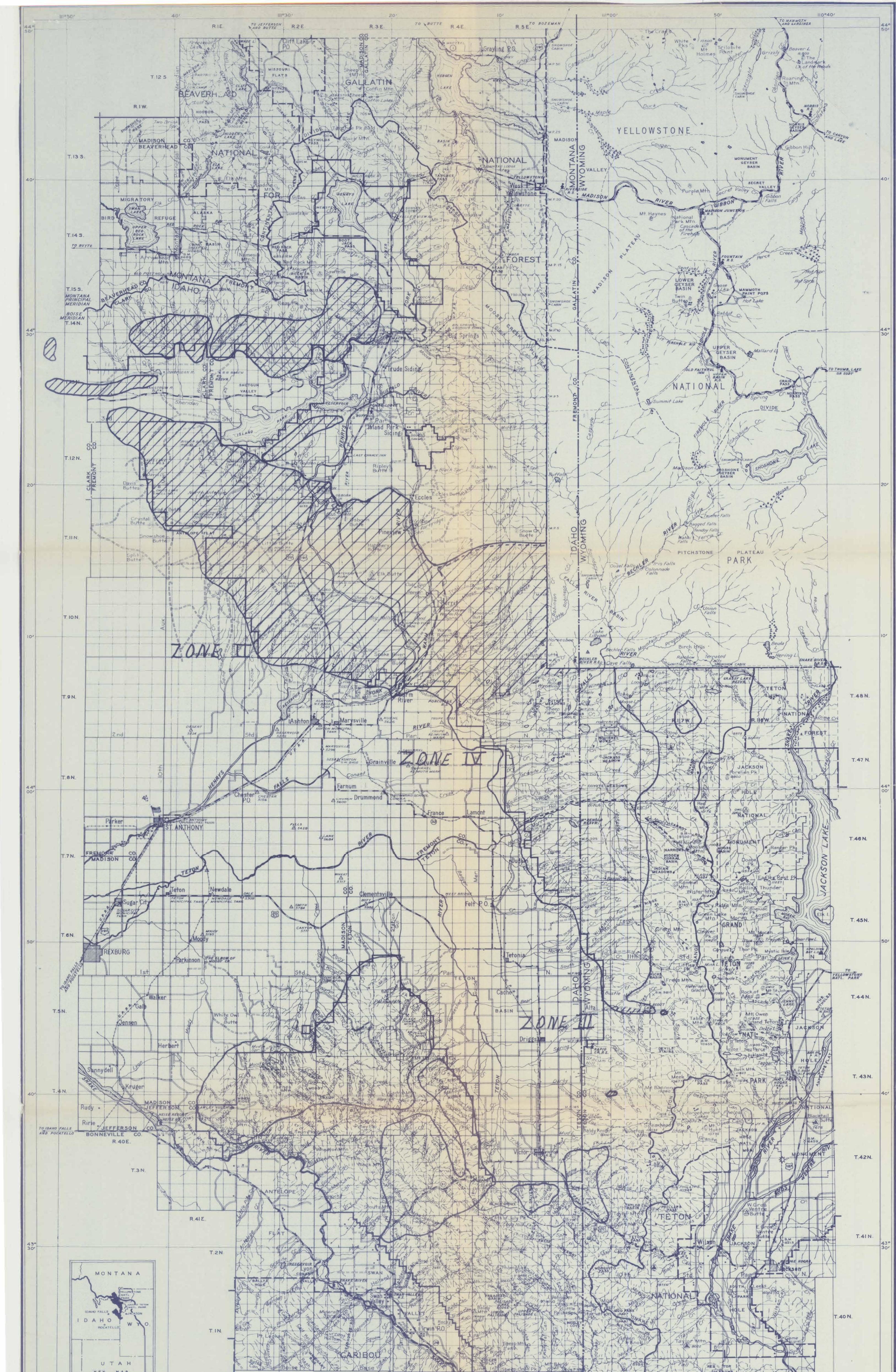
The project will not adversely affect fish and wildlife unless improper treating measures are used. Down trees, slash, and stumps could affect water drainages if not properly disposed.

The chemical, ethylene dibromide with a diesel carrier, is not harmful to wildlife or fish when used as specified; however, dumping of the concentrate or solution into live streams could cause adverse effects. The vegetation directly under the tree is only temporarily affected; it recovers within one or two seasons.

If falling and treating or logging causes a threat to regeneration, protection of the cleared areas and artificial regeneration to trees or browse species should be considered for wildlife feed and habitat. Stream-side values are jeopardized if all trees are allowed to die. Protection of existing stands and replacement of dead trees should be considered.

#### IV. Special Considerations

- A. The project headquarters will be at the Supervisor's Office in St. Anthony, with zone headquarters as follows:
  1. Zone II - Island Park
  2. Zone III - Driggs
  3. Zone IV - Porcupine
- B. The District Rangers involved will be kept informed of all phases of the project which affect coordination with other uses. Since the District Rangers are responsible to ensure that coordination is carried out, all coordination decision making will be referred to them by the zone supervisors.
- C. The District Ranger will approve the location and makeup of all contractor or Forest Service temporary camps and facilities to be placed on his District.
- D. Show-me trips will be conducted and news articles presented to ensure that the public fully understands the necessity of the project. They will be shown what the result would be if such a project were not undertaken. A detailed I&E plan will be prepared for the project.
- E. A detailed hazard analysis plan will be made for the entire project, plus each zone will have a hazard-analysis plan in conjunction with their weekly safety meeting plan.



## TARGHEE NATIONAL FOREST EAST DIVISION IDAHO AND WYOMING BOISE AND SIXTH PRINCIPAL MERIDIANS

1955\*

Inestation -

Project -

SCALE  
1 0 1 2 3 4 5 MILES

LEGEND

- NATIONAL FOREST BOUNDARY
- ADJACENT NATIONAL FOREST BOUNDARY
- STATE HIGHWAY ROUTE NUMBERS
- MAIN MOTOR HIGHWAY
- GOOD MOTOR ROAD
- SECONDARY MOTOR ROAD
- TRAIL
- RAILROAD
- TELEPHONE LINE
- SUPERVISOR'S HEADQUARTERS
- DISTRICT RANGER STATION
- GUARD OR RANGER STATION NOT PERMANENTLY OCCUPIED
- PERMANENT LOOKOUT STATION
- TRIANGULATION STATION
- HOUSE, CABIN OR OTHER BUILDING
- MUNICIPAL AIRPORT
- AUXILIARY LANDING FIELD
- NATIONAL FOREST LAND

REPORT ALL FIRES TO FOREST SUPERVISOR,  
RANGER GUARD, SHERIFF OR ANY TELEPHONE OPERATOR

COMPILED AT REGIONAL OFFICE, OGDEN, UTAH  
FROM U.S.G.S. BU. LAND MAN. (FORMERLY C.G.S.)  
FOREST SERVICE AND OTHER SURVEYS BY  
C. SPAULDING 1950 BY C. SPAULDING

\*REPRINT OF 1950 EDITION

FOREST SERVICE MAP CLASS E

LONGITUDE WEST FROM GREENWICH

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STAGE II

MULTIPLE USE SURVEY REPORT

MOUNTAIN PINE BEETLE CONTROL PROJECT

Fiscal Year 1968

Targhee National Forest - Region 4

Report Prepared and Submitted by: /S/ John J. Kincheloe 9/16/67  
Project Supervisor Date

/S/ D. F. Marsolek 9/18/67  
Branch Chief - Timber Date  
Management

Approval of Report by: /S/ W. Muehler 9/19/67  
District Ranger, Spencer District Date

/S/ Robert M. Cole 9/21/67  
District Ranger, Island Park District Date

/S/ Clyde P. Maycock 9/22/67  
District Ranger, Ashton District Date

/S/ Frank G. Beitia 9/22/67  
District Ranger, Porcupine District Date

/S/ Richard D. Heninger 9/19/67  
District Ranger, Teton Basin District Date

Alvin F. Wright 10/5/67  
Forest Supervisor Date

Report Approved by: \_\_\_\_\_  
Regional Forester Date